

CLAIMS**I (WE) CLAIM:**

1. In a wireless communication system having a rake receiver with multiple
2 fingers, a method comprising:
determining a lock state for a first finger of the multiple fingers;
4 determining a comparison of received signal energy for the first finger to
a threshold value if the first finger is out of lock; and
6 adjusting a lock filter for processing signals received on the first finger in
response to the comparison.
2. The method as in claim 1, further comprising:
2 waiting a first time period if the first finger is out of lock before adjusting
the lock filter.
3. The method of claim 1, wherein adjusting the lock filter further
2 comprises:
providing an output of the lock filter equal to the received signal when the
4 energy of the received signal is greater than the threshold; and
increasing an energy level of the lock filter when the energy of the
6 received signal is less than the threshold.
4. The method of claim 1, further comprising:
2 determining a comparison of filtered signal energy for the first finger to a
second threshold after adjusting the lock filter; and
4 reassigning a path to the first finger in response to the comparison.
5. The method of claim 4, further comprising:
2 maintaining path assignments to the multiple fingers for a predetermined
time period.
6. The method of claim 1, further comprising:
2 determining if a transmitter of the received signal is in soft hand off; and

4 providing power control instructions as a function of the energy of the
received signal if the transmitter is in soft hand off.

2 7. The wireless apparatus performing the method of claim 5, further
comprising:

instructing the transmitter to gradually adjust transmit power.

2 8. A transceiver, comprising:
a rake receiver having a plurality of fingers, the plurality of fingers
adapted to receive multipath signals; and
4 a lock detector coupled to the rake receiver operative to adjust signal
filtering based on lock states of the fingers.

2 9. The transceiver of claim 7, wherein the lock detector is further operative
to compare received energy of the received signal to a first energy threshold.

2 10. The transceiver of claim 8, wherein the lock detector comprises:
a lock filter operative to filter the received signal; and
a filter adjustment means operative to adjust the lock filter in response to
4 the lock detector.

2 11. The transceiver of claim 9, wherein the filter adjustment means waits a
predetermined time period prior to adjusting the lock filter.

2 12. A method for tracking a mobile station in a wireless communication
system, comprising:
determining if the mobile station is in soft hand-off;
4 ignoring a lock state of a rake antenna if the mobile station is in soft
hand-off; and
6 transmitting a predetermined power control pattern if the mobile station is
not in soft hand-off.

2 13. The method of claim 12, further comprising:
adjusting the power control as a function of received signal energy if the
mobile station is in soft hand-off.

